

B30EN

6x6

Articulated Dump Truck

Stage V certified



- Maximum Net Power: 260 kW (348 hp)
- SAE 2:1 Capacity: 17,5 m³ (22,9 yd³)
- Rated Payload: 28 000 kg (61 729 lbs)
- Operating Weight: 49 482 kg (109 089 lbs)

BELL

B30EN 6x6 Articulated Dump Truck

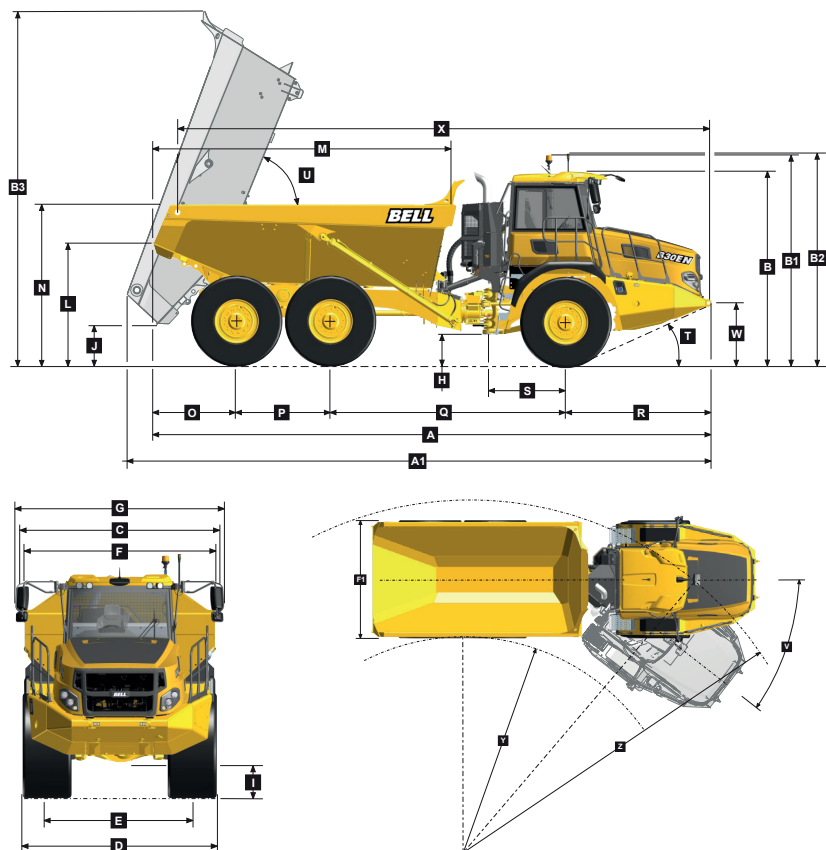


ENGINE Manufacturer Mercedes Benz Model OM936LA Configuration Inline 6, turbocharged and intercooled Maximum Net Power 260 kW (348 hp) at 1 800 rpm in accordance with UN ECE R120 Gross Torque 1 450 Nm (1 069 lbft) @ 1 200 - 1 600 rpm Displacement 7,7 litres (469 cu.in) Auxiliary Brake Compression brake Fuel Tank Capacity 302 litres (79.78 US gal) AdBlue® Tank Capacity 31 L (8.2 US gal) Certification OM936LA meets EU Stage V / EPA Tier 4 Final emissions regulations.	Torque Control Hydrodynamic with lock-up in all gears TRANSFER CASE Manufacturer Kessler Series W1400 Layout Remote mounted Gear Layout Three in-line helical gears Output Differential Interaxle 33/67 proportional differential. Automatic inter-axle differential lock.	Total Retardation Power 335kW (449 hp) Continuous 494kW (662 hp) Maximum WHEELS Type Radial Earthmover Tyre 23.5 R 25 (750/65 R 25 optional) FRONT SUSPENSION Semi-independent, leading A-frame supported by hydro-pneumatic suspension struts. Optional active dual springrate Comfort Ride suspension available, including height control.	DUMPING SYSTEM Two double-acting, single stage, dump cylinders Raise Time 12 s Lowering Time 10 s Tipping Angle 70° standard, or any lower angle programmable PNEUMATIC SYSTEM Air drier with heater and integral unloader valve, serving park brake and auxiliary functions. System Pressure 8,1 Bar (117 psi)																					
TRANSMISSION Manufacturer Allison Model 3400P ORS Configuration Fully automatic planetary transmission Layout Engine mounted Gear Layout Constant meshing planetary gears, clutch operated Gears 6 Forward, 1 Reverse Clutch Type Hydraulically operated multi-disc Control Type Electronic	AXLES Manufacturer Bell Model 18T Differential High input limited slip differential with spiral bevel gears Final Drive Outboard heavy duty planetary on all axles BRAKING SYSTEM Service Brake Dual circuit, full hydraulic actuation wet disc brakes on front, middle and rear axles. Wet brake oil is circulated through a filtration and cooling system. Maximum brake force: 174 kN (39 116 lbf) Park & Emergency Spring applied, air released driveline mounted disc Maximum brake force: 251 kN (56 400 lbf) Auxiliary Brake Jacobs Engine Brake®. Automatic retardation through electronic activation of wet brake system.	REAR SUSPENSION Pivoting walking beams with laminated rubber suspension blocks. Optional passive dual-springrate Comfort Ride walkingbeam available. HYDRAULIC SYSTEM Full load sensing system serving the prioritized steering, body tipping and brake functions. A ground-driven, load sensing emergency steering pump is integrated into the main system. Pump Type Variable displacement load sensing piston Flow 202 L/min (53 gal/min) Pressure 310 Bar (4 500 psi) Filter 5 microns STEERING SYSTEM Double acting cylinders, with ground-driven emergency steering pump. Lock to lock turns 4,1 Steering Angle 45°	ELECTRICAL SYSTEM Voltage 24 V Battery Type Two AGM (Absorption Glass Mat) type Battery Capacity 2 X 75 Ah Alternator Rating 28V 100A VEHICLE SPEEDS <table><tr><td>1st</td><td>7 km/h</td><td>4 mph</td></tr><tr><td>2nd</td><td>15 km/h</td><td>9 mph</td></tr><tr><td>3rd</td><td>23 km/h</td><td>14 mph</td></tr><tr><td>4th</td><td>35 km/h</td><td>22 mph</td></tr><tr><td>5th</td><td>47 km/h</td><td>29 mph</td></tr><tr><td>6th</td><td>50 km/h</td><td>31 mph</td></tr><tr><td>R</td><td>7 km/h</td><td>4 mph</td></tr></table> CAB ROPS/FOPS certified 74 dBA internal sound pressure measured according to ISO 6396.	1st	7 km/h	4 mph	2nd	15 km/h	9 mph	3rd	23 km/h	14 mph	4th	35 km/h	22 mph	5th	47 km/h	29 mph	6th	50 km/h	31 mph	R	7 km/h	4 mph
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Load Capacity & Ground Pressure

OPERATING WEIGHTS*		GROUND PRESSURE				LOAD CAPACITY		OPTION WEIGHTS	
UNLADEN	kg (lb)	LADEN				BODY	m³ (yd³)		kg (lb)
Front	10 930 (24 097)	No sinkage/Total Contact Area (as recommended by tyre manufacturer)	Calculation method used by competition			Struck Capacity	14,2 (18,6)	Bin liner	751 (1 656)
Middle	5 504 (12 134)					SAE 2:1 Capacity	17,5 (22,9)	Wheelset 750/65R25	
Rear	5 048 (11 129)	23.5 R 25	kPa (Psi)	23.5 R 25	kPa (Psi)	SAE 1:1 Capacity	20,6 (26,9)	(per vehicle) Add	642 (1 415)
Total	21 482 (47 360)	Front	298 (43,2)	Front	134 (19,4)				
LADEN		Mid/ Rear	405 (58,7)	Mid/ Rear	169 (24,5)	Rated Payload	28 000 kg	EXTRA WHEELSET	
Front	14 300 (31 526)						(61 729 lbs)	23.5 R 25	
Middle	17 819 (39 284)	750/65 R 25		750/65 R 25				(per vehicle) Add	132 (291)
Rear	17 363 (38 279)	Front	240 (34,8)	Front	111 (16,1)			750/65R25	
Total	49 482 (109 089)	Mid/ Rear	310 (45)	Rear	143 (20,7)			(per vehicle) Add	474 (1 045)

Dimensions

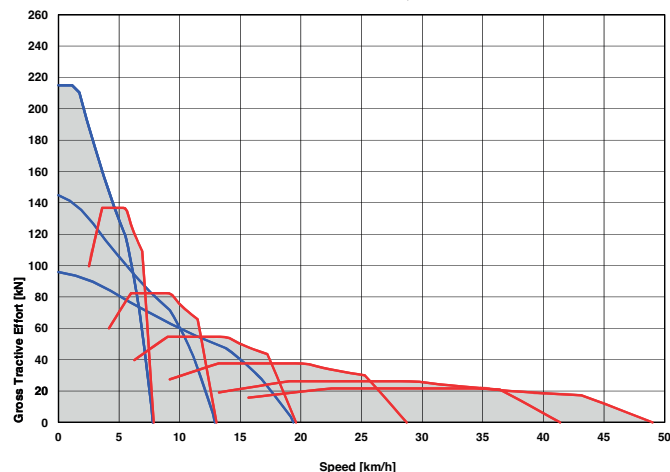
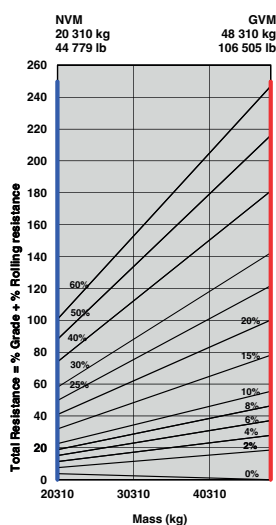


Machine Dimensions

A	Length-Transport Position w/o Tailgate	9 953 mm (32 ft 7 in)
A	Length-Transport Position with Tailgate	10 035 mm (32 ft 11 in)
A1	Length-Bin Fully Tipped	10 467 mm (34 ft 4 in)
B	Height-Transport Position S5	3 426 mm (11 ft 3 in)
B1	Height-Rotating Beacon	3 723 mm (12 ft 3 in)
B2	Height-Load Light	3 748 mm (12 ft 4 in)
B3	Bin Height-Fully Tipped	6 258 mm (20 ft 6 in)
C	Width over Mudguards	2 985 mm (9 ft 9 in)
D	Width over Tyres-23.5R25	2 940 mm (9 ft 7 in)
D1	Width over Tyres-750/65 R25	2 998 mm (9 ft 10 in)
E	Tyre Track Width-23.5R25	2 356 mm (7 ft 8 in)
E1	Tyre Track Width-750/65 R25	2 260 mm (7 ft 4 in)
F	Width over Bin	2 700 mm (8 ft 10 in)
F1	Width over Tailgate	2 998 mm (9 ft 10 in)
G	Width over Mirrors-Operating Position	3 260 mm (10 ft 8 in)
H	Ground Clearance-Artic	537 mm (21.14 in)
I	Ground Clearance-Front Axle	488 mm (19.21 in)
J	Ground Clearance-Bin Fully Tipped	675 mm (26.57 in)
L	Bin Lip Height-Transport Position	2 176 mm (7 ft 1 in)
M	Bin Length	5 316 mm (17 ft 5 in)
N	Load over Height	2 953 mm (9 ft 8 in)
O	Rear Axle Centre to Bin Rear	1 500 mm (4 ft 11 in)
P	Mid Axle Centre to Rear Axle Centre	1 670 mm (5 ft 5 in)
Q	Mid Axle Centre to Front Axle Centre	4 181 mm (13 ft 8 in)
R	Front Axle Centre to Machine Front	2 602 mm (8 ft 6 in)
S	Front Axle Centre to Artic Centre	1 362 mm (4 ft 5 in)
T	Approach Angle	25°
U	Maximum Bin Tip Angle	70°
V	Maximum Articulation Angle	45°
W	Front Tie Down Height	1 075 mm (3 ft 6 in)
X	Machine Lifting Centres	9 477 mm (30 ft 1 in)
Y	Inner Turning Circle Radius - 23.5R25	4 110 mm (13 ft 5 in)
Y1	Inner Turning Circle Radius-750/65 R25	4 081 mm (13 ft 4 in)
Z	Outer Turning Circle Radius-23.5R25	8 000 mm (26 ft 2 in)
Z1	Outer Turning Circle Radius-750/65 R25	8 029 mm (26 ft 4 in)

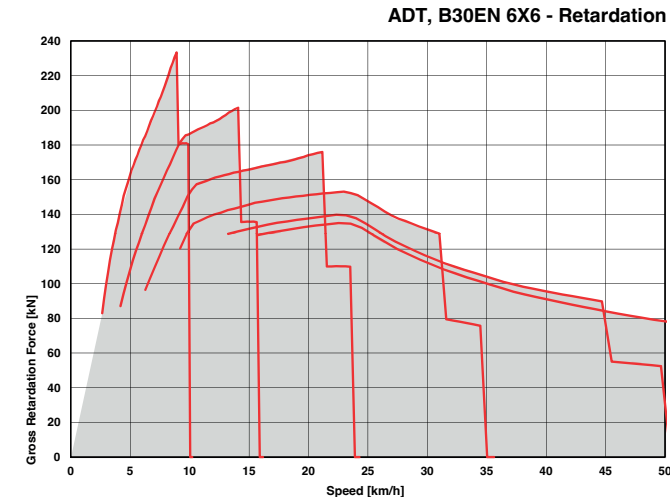
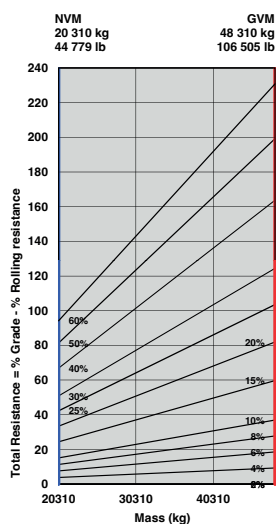
Gradeability/Rimpull

1. Determine tractive resistance by finding intersection of vehicle mass line and grade line. NOTE: 2% typical rolling resistance is already assumed in chart and grade line.
2. From this intersection, move straight right across charts until line intersects rimpull curve.
3. Read down from this point to determine maximum speed attained at that tractive resistance.



Retardation

1. Determine retardation force required by finding intersection of vehicle mass line and grade line. NOTE: 2% typical rolling resistance is already assumed in chart.
2. From this intersection, move straight right across charts until line intersects the curve. NOTE: 2% typical rolling resistance is already assumed in chart.
3. Read down from this point to determine maximum speed.



ENGINE

- Jacobs Engine Brake®
- Dual element air cleaner with dust ejector valve
- Precleaner with automatic dust scavenging
- Water separator
- Serpentine drive belt with automatic tensioner
- Provision for fast fill

COOLING

- Crankshaft mounted electronically controlled viscous fan drive
- Fan guard

PNEUMATIC SYSTEM

- Engine-mounted compressor
- Air drier with heater
- Integral unloader valve

ELECTRICAL SYSTEM

- Battery disconnect
- Drive lights
- Air Horn
- Reverse alarm
- ▲ White Noise reverse alarm
- Rotating Beacon
- Pitch Roll Sensor
- LED reverse lights
- ▲ LED Artic reverse light
- ▲ Halogen Artic reverse light

STEERING SYSTEM

- Bi-directional ground-driven secondary steering pump

CAB

- ROPS/FOPS certification
- Tilt cab
- Gas strut-supported door
- I-Tip programmable dump-body tip settings
- HVAC Climate control system
- AM/FM radio/CD player
- Rear window guard
- Wiper/washer with intermittent control
- Tilt and telescoping steering wheel
- Centre-mount air-suspension seat
- ▲ LED work lights
- Halogen work lights
- ▲ Rotating beacon: seat belt installation
- ▲ Remote engine and machine isolation
- Remote battery jump start
- Retractable 3 point seat belt
- Heated seat
- Foldaway trainer seat with retractable seat belt

CAB (continued)

- 12-volt power outlet
- Cab utility bin (removable)
- Cup holder
- Cooled/heated lunch box
- Electric adjustable and heated mirrors
- Deluxe 10" colour LCD:
Speedometer / Fuel gauge /
Transmission oil temperature gauge /
Engine coolant temperature gauge /
LED function/warning indicators and audible alarm / Transmission gear selection /
Tachometer / Battery voltage / Hour meter /
Odometer / Fuel consumption / Tip counter /
Trip timer / Trip distance / Metric/English units /
Service codes/diagnostics
- Backlit sealed switch module functions with:
Wiper control / Lights / Heated mirrors /
Retarding aggressiveness / Transfer case differential lock / Transmission gear hold /
Dump-body tip limit / Automatic dump-body tip settings / Airconditioner/ Heater controls /
Preselected Speed Control

DUMP BODY

- Dump body mechanical locks (x2). Partially up and fully up
- ▲ Body liner
- Tailgate
- ▲ Body heater
- ▲ Less dump body and cylinders

OTHER

- Automatic Traction Control (ATC)
- Wet disc brakes B30E
- 23.5R25 Radial Earthmover tyres
- ▲ 750/65R25 Radial Earthmover tyres
- Remote grease banks
- ▲ Automatic greasing
- Onboard Weighing
- ▲ Load lights: stack
- ▲ Comfort ride suspension (Front)
- ▲ Comfort ride suspension (Rear)
- ▲ Reverse camera
- ▲ Hand rails
- Cab peak
- ▲ High pressure hydraulic filter
- ▲ Fuel heater
- Belly cover
- Cross member cover
- ▲ Remote transmission filters
- Electronic Bonnet opening

All dimensions are shown in millimetres, unless otherwise stated between brackets. Under our policy of continuous improvement, we reserve the right to change technical data and design without prior notice. Photographs featured in this brochure may include optional equipment. Blu@dvantage™ is a trademark of Bell Equipment Co. (PTY) Ltd AdBlue® is a registered trademark of VDA.

BELL INTERNATIONAL: Tel: +27 (0)35-907 9431

E: marketing@bellequipment.com

W: www.bellequipment.com



Tel: +61 (0)8-9355-2442



Tel: +49 (0)6631 / 91-13-0



Tel: +27 (0)11-928-9700



Tel: +33 (0)5-55-89-23-56



Tel: +44 (0)1283-712862



Tel: (704) 655 2802